

### 3. MILITARY MISSION

The Spirit of the “Arctic Light”

*“We train to the highest standards in the toughest environment in the world—we are ready to go anywhere in the world within 18 hours—there is nothing that we cannot handle when we get there—we are up to it.”<sup>6</sup>*

#### 3-1 General

For more than 50 years, members of the United States Armed Forces have trained at Fort Richardson, gaining skills needed to win on battlefields of the world. The mission of Fort Richardson has changed over the decades . . . from defense of Alaska in World War II . . . to defense of the nation with the development of intercontinental missiles . . . to providing an oil pipeline to support the Vietnam War . . . to today’s peacetime mission.

USARAK’s current mission is to command and control United States Army forces in Alaska and to provide the services, facilities and infrastructure to support power projection and training to rapidly deploy Army forces from Alaska in the conduct of contingency operations within the Pacific theater and elsewhere as directed.

Fort Richardson is headquarters for the major support element of USARAK, the Arctic Support Brigade, as well as the garrison staff. The primary combat unit at the fort, 1st Battalion (Airborne), 501st Infantry, along with smaller supporting engineer, signal, military intelligence and artillery units, form a readily deployable combat task force in support of the 1st Brigade, 6th Infantry Division (Light) headquartered at Fort Wainwright.

Soldiers stationed at Fort Richardson learn the skills of arctic survival and master over-snow travel, tundra crossing and glacier and riverine techniques along with their standard military specialties. The command holds extensive field training exercises in Alaska and participates in USARPAC exercises in the Pacific.



*“Ready to go anywhere in the world within 18 hours.”*



*Fort Richardson soldiers master the arctic environment.*

<sup>6</sup> Lt. Gen. L.E. Boese

Fort Richardson is authorized 2,175 soldiers, who along with approximately 3,800 family members reside on post or in the adjacent communities of Anchorage, Eagle River and Palmer. The fort employs about 1,050 Army and DOD civilian employees.

### 3-2 Effects of the Military Mission on Natural Resources

*The conservation of natural resources and the military mission will not be mutually exclusive.<sup>7</sup>*

Fort Richardson's broad mission entails a variety of military land uses. Over the years, mechanized infantry, artillery, special forces, and assault aircraft personnel have trained at Fort Richardson.

Damaging effects of military missions primarily result from one of two sources: munitions impacts and maneuvers. Impact damage occurs within 2,195 acres of designated impact area in Eagle River Flats (ERF). Munitions can damage soil, vegetation, and wildlife upon impact. Other sources of damage from impact include proliferation of shrapnel and toxic residues. Military munitions fired into ERF include: 107 mm, 81 mm, and 60 mm mortar rounds, 155 mm and 105 mm howitzer rounds, 90 mm recoilless rifle rounds, 66 mm Light Anti-tank Weapons, 40 mm grenades, Shillelagh missiles (isolated), flares, and small arms rounds (CH2M Hill, 1994b). Most projectiles fired onto ERF are high explosive; however, smoke and illumination rounds are also fired. White phosphorous rounds are no longer used at Fort Richardson.



ERF impact area.

Maneuver training on Fort Richardson involves the use of heavy cargo trucks, High Mobility Multipurpose Wheeled Vehicles (HUMV), Armored Personnel Carriers (APC), light-weight tracked vehicles known as Small Unit Support Vehicles (SUSV), and snow machines in winter. The most severe and widespread damage from maneuvers occurs under conditions where soil has become saturated either by excessive rainfall during summer or during and immediately after break-up (usually in April) when the winter snowpack is melting.

Damage includes rutting and vegetation destruction from cross-country travel. On secondary roads, damage results from deep rutting and liquefaction of silty materials underlying roadbeds. Liquefaction can result in the formation of large craters in secondary roads. Damage on combat trails is primarily due to rutting.



Rutting of roads and trails under wet conditions is one of the most common types of maneuver damage.

In bivouac areas, ruts form under wet conditions where vegetation has been removed or destroyed. Other, less severe, damage in maneuver areas results from training activities that involve routine ground disturbance and damage or destruction of vegetation. Repeated use of firing points and bivouac sites often results in almost complete removal of shrub vegetation by heavy vehicular traffic. Earth-moving activities associated with training often result in areas denuded of vegetation that are difficult to restore. Some examples of these are open fox-holes and tank traps.

<sup>7</sup> AR 200-3, Natural Resources-Land, Forest, and Wildlife Management, para 2-11.

Impacts associated with maneuver training in winter result from using heavy equipment to clear snow from trails and bivouac areas. Often, grader and dozer blades are lowered beneath the snow, scraping topsoil and vegetation into berms, which take several years to become revegetated. The resulting unsightly mounds and rough terrain remain evident for many years.

Military training can also affect wildlife. Potential impacts include:

- ▶ Wildlife becoming entangled in concertina and communications wire which often results in death or serious injury



*Moose and other wildlife can be fatally injured by concertina and communications wire left unattended in the field.*

- ▶ Loss of habitat and habitat fragmentation
- ▶ Wildlife drinking antifreeze containing ethylene glycol or being exposed to other toxic materials
- ▶ Disruption of natural wildlife movement patterns
- ▶ Soldiers either intentionally or inadvertently harassing or otherwise causing harm to wildlife
- ▶ Wildlife falling into unfilled holes
- ▶ Wildlife being artificially attracted to areas as a result of unsanitary or poor “housekeeping practices”

U.S. Army Alaska Regulation 350-2 requires all soldiers to pick up concertina and communications wire, clean up all trash, fill in holes, and specifically restricts harassing wildlife.

The noise of military training is often believed to affect wildlife. Sources of noise on Fort Richardson may include firing and detonation of munitions, low flying aircraft, construction activities and general troop maneuvers (both mechanized and pedestrian). Numerous studies have indicated that the introduction of noise into previously undisturbed areas can initially cause behavioral changes and stress in some species of wildlife. But over an extended period of time these effects wane as wildlife becomes accustomed and habituated to the recurring disturbance. Observations of wildlife on Fort Richardson support this general statement that noise is of little significance.

Unexploded ordnance found outside impact areas as a result of firing activities in the early days of the post may pose some threat to those who use the post for military training or natural resources-based recreation. However, there is no evidence that this threat is significant or common.

### 3-2a Past Mission Impacts on Natural Resources

The withdrawal of land (through BLM) for Fort Richardson had a long-term positive effect on natural resources, as the area likely would have otherwise been enveloped by the expansion of Anchorage. Most of the land outside of the cantonment area was left undeveloped, affected only by training impacts. In 1970, Fort Richardson adopted a policy of actively conserving natural resources. A biologist was hired to initiate a land management program, which has grown steadily and has resulted in positive impacts on natural resources.

Impacts to natural resources on Fort Richardson have been consistent with trends at other DOD holdings. The Unit Leader’s Handbook for Environmental Stewardship (Department of Army, 1994) lists six primary consequences of intensive and continuous use of Army training lands:

- ▶ The loss of historical sites, vegetation, water resources, and wildlife
- ▶ Diminished quality of available realistic training areas
- ▶ Diminished operational security



- ▶ Ineffective tactical operations
- ▶ The creation of safety hazards to personnel and equipment
- ▶ An increase in training, maintenance costs, and litigation

On Fort Richardson, the first and last items have been most significant.

The most significant mission impact to date is munitions residues in wetlands, resulting in loss of wildlife, loss of training assets, and high research and mitigation costs. In their evaluation of this problem in ERF, USARAK was the first to recognize the danger of white phosphorous to wildlife and has been a leader in the study and treatment of adverse effects of military training on wetlands.

In 1980, USARAK personnel on Fort Richardson noticed an unusually high mortality of waterfowl in the ERF Impact Area. This discovery led to a series of investigations that spanned fourteen years and a study of military impacts on a scale unprecedented on other installations. The investigation was coordinated by a five member interagency task force focused on the relation between munitions residues and waterfowl mortality. By 1994, 36 separate



*Trumpeter swans were among the waterfowl losses on ERF.*

studies had been conducted by seven government agencies and laboratories (CH2M Hill, 1994b). These studies produced the following conclusions:

- ▶ White phosphorus residues from certain munitions caused waterfowl mortality

- ▶ White phosphorus posed the greatest threat when concentrated in sediments
- ▶ White phosphorus contamination was not spreading significantly to other areas
- ▶ Other munitions residues were not causing waterfowl mortality (CH2M Hill, 1994b)

In 1990, live firing into ERF was suspended pending further study. It was reinstated two years later under the following USARAK-imposed conditions:

- ▶ No firing of white phosphorus munitions
- ▶ A minimum of 6 inches of ice or frozen ground must cover ERF
- ▶ Firing is allowed only between November 1 and March 31
- ▶ Only point contact detonators are used

In addition, as a result of this study the Pentagon issued a nationwide memorandum prohibiting the firing of white phosphorus munitions in wetlands.

In 1994, ERF was included on the U.S. Environmental Protection Agency's National Priorities List. USARAK is now pursuing strategies for remedial solutions to white phosphorus contamination (CH2M Hill, 1994b).

### 3-2b Present Mission Impacts on Natural Resources

USARAK is minimizing the potential for additional environmental damage to the impact area by initiating firing restrictions and remedial actions on ERF. Maneuver activities are now the largest potential source of damage on the post, though not on a large scale. The actions of combat engineer units are another source of damage associated with maneuvers. One such problem during years of high snowfall is damage to soil and vegetation by plowing snow from frequently used training sites. In 1994, USARAK began efforts to counteract the cumulative effects of military training impacts by establishing an Integrated Training Area Management (ITAM) program.

The USARAK military mission fosters relatively healthy, stable ecosystems. The most basic and significant reason for this is found in the very nature

of the infantry's use of the land. While infantry-related exercises may cause localized damage, they very seldom threaten ecosystems or biodiversity. This is especially so in Alaska where impacts are, for the most part, small and of short duration. The only exception being damage to the alpine tundra which takes long periods of time to recover. USA-RAK being well aware of the delicate nature of the alpine takes every precaution to avoid causing damage.

Fort Richardson continues to preserve native ecosystems by preventing rampant development and municipal expansion. Natural resources management considerations and safety demands associated with the training mission limit the extent of other potentially damaging land uses. The diverse, self-

sustaining natural resources found on Ft. Richardson attest to the success of its conservation efforts. The post is an important wintering ground for moose and staging area for migrating waterfowl, and provides habitat for hundreds of other native plants and animals.

### 3-2c Future Mission Impacts on Natural Resources

Through 1998–2003, maneuver activities are expected to remain at current levels (J. Breun, pers.com.). Damage resulting from the training mission will be repaired under the Land Rehabilitation and Maintenance (LRAM) component of ITAM.